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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.           | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------------|------------------|
| 09/800,143  | 03/06/2001  | Ali S. Khayrallah    | 8194-477                      | 4519             |
| 20792   | 7590        | 09/19/2005           |                               |                  |
| MYERS BIGEL SIBLEY & SAJOVEC<br>PO BOX 37428<br>RALEIGH, NC 27627 |             |                      | EXAMINER<br>CORRIELUS, JEAN B |                  |
|   |             |                      | ART UNIT                      | PAPER NUMBER     |
|   |             |                      | 2637                          |                  |
| DATE MAILED: 09/19/2005   |             |                      |                               |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/800,143 | <b>Applicant(s)</b><br>KHAYRALLAH ET AL. |  |
|                              | <b>Examiner</b><br>Jean B Corrielus  | <b>Art Unit</b><br>2637                  |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 August 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-20 and 22-45 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-20, 34-43 and 45 is/are allowed.
- 6) ☒ Claim(s) 2, 3, 22-25 and 44 is/are rejected.
- 7) ☒ Claim(s) 4-11 and 26-33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/02&amp;12/04&amp;08/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 21, 22, 23 and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Friedmann et al US Patent S/N US 6,223,053 B1.

As per claims 1, 21 and 44, Friedmann discloses a method and apparatus having selecting one (sequence) of a plurality of candidate frequency hopping sequences (modes) as the frequency hopping sequence (mode) for communication based on a transmission scheme of the plurality of transmission schemes selected for the communication see fig. 3, col. 8, lines 25-27, col. 9, lines 8-15 and col. 11, lines 1-7.

As per claims 22 and 23, the system (radio) comprises a mobile terminal/base station see col. 3, lines 3-4.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 3, 22-25 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedmann et al in view of Schmidl et al US Application S/N US 2003/0206561 A.

As per claims 2, 24 and 44, Friedmann discloses a method and apparatus having selecting one (sequence) of a plurality of candidate frequency hopping sequences (modes) as the frequency hopping sequence (mode) for communication based on a transmission scheme of the plurality of transmission schemes selected for the communication see fig. 3, col. 8, lines 25-27, col. 9, lines 8-15 and col. 11, lines 1-7. However, Friedmann et al does not explicitly teach that the transmission scheme is selected according to channel characteristics over which the communication is to be transmitted. However, such limitation does not involve any inventive step. For instance, Schmidl et al teaches the selection of a communication scheme according to quality of the link see paragraph 0105. Given that fact, it would have been obvious to one skilled in the art to incorporate such a teaching in Friedmann et al in order to use efficiently the communication medium.

As per claim 3 and 25, Schmidl et al teaches the transmission schemes includes coding rate see paragraph 0105. It would have been obvious to one skill in the art at the time of the invention to select such a modulation scheme and the reason to combine would have been the same as provided above in reference to claims 2, 24 and 44.

As per claims 22 and 23, the system (radio) comprises a mobile terminal/base station see col. 3, lines 3-4.

***Allowable Subject Matter***

5. Claims 4-11, 26-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 12-20, 34-43 and 45 are allowed.

***Response to Arguments***

7. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, at paragraph 0005, Schmidl teaches that a channel quality information is obtained and the coding and modulation schemes are selected/adjusted based on said information. Hence, such teaching suggests to one skill in the art that in order to use "efficiently the communication medium", modulation and/or coding schemes have to be adjusted

according to channel conditions. Given that, one skill in the art would have been motivated to incorporate such a teaching in Friedmann et al in order to "efficiently use the communication medium".

It is further alleged that Friedmann and Schmidl appear to be directed to different wireless communication. However, it is noted that both Friedmann and Schmidl are directed to the same field of endeavor which is "wireless communication".

It is further alleged that there is no discussion in Schmidl of separately modifying a transmission protocol and frequency hopping mode. However, such limitation is not in the claim.

### ***Conclusion***

**8. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Corrielus whose telephone number is 571-272-3020. The examiner can normally be reached on Maxi-Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jean B Corrielus  
Primary Examiner  
Art Unit 2637 9-16-05